

Dec. 13, 2009

EPA Region 5 Records Ctr.



383625

Mr. Michael Berkoff

USEPA

77 W. Jackson Blvd SR-6j

Chicago, IL 60604

Re: OU-1 (Allied Paper) Site Draft Feasibility Study

Dear Mr. Berkoff:

I hope, in the interest of completeness and credibility of process, the EPA will consider adding an additional alternative to the Draft Feasibility Study for OU-1 of the Kalamazoo River Superfund Site. We could call it Alternative 7. It consists of total encapsulation of PCB-containing material within the Allied Site by in-situ chemical fixation to increase its mechanical strength and reduce its permeability. This technology has been used successfully to stabilize and treat chromium plating waste sludge at a Ford Motor Company site in Monroe, Michigan. See www.epa.gov/waste/hazard/correctiveaction/sbs2/pdfs/mi7005.pdf. Later, sediment containing PCBs was removed from the adjoining River Raisin and made into a stable formation on the Ford site. *

If necessary, further isolation of the contaminated soil from the crossflow of groundwater could be accomplished by constructing an enclosure around the sides of the capped HRDLs and FRDLs on the Allied site and to pump and treat groundwater that upwells into the inside of that enclosure. If the walls and cap around the contaminated material are well constructed, the amount of groundwater to be treated will be minimal and eventually only relatively clean inflowing groundwater will need to be pumped out.

Tests of various formulations of the stabilizing chemicals can be performed to determine the degree to which in-situ fixation will prevent movement of PCBs from the site. The results of these tests will permit the design of a remedy that balances initial costs against ongoing O&M costs in arriving at an optimum decision with respect to the 9 EPA criteria. On-site monitoring of the site after completion of the in-situ stabilization will be needed for some time to confirm the effectiveness of the remedy.

The intention of this suggestion is to offer a practical alternative to be added to those listed in the Draft FS which meets the performance expectations of TSCA-licensed disposal facilities yet should cost significantly less than the two most expensive options already listed in the Draft FS. My suggestion is an extension of the recommendations found on pages 23-26 of the report, *Interim Technical Responses to Allied Paper*

Operable Unit Kalamazoo, Michigan Remedial Investigation Report (March 19, 2008) prepared by NTH Consultants, Ltd. and the City of Kalamazoo. Their report was dated Sept. 17, 2008.

Some advantages of this additional alternative:

1. The one-time (capital) cost may be 1/3 to 1/2 that of Alt. 6, as described in the draft FS.
2. The absence of groundwater flow data in the lower aquifer, and lack of information concerning the existence and extent of linkage between the upper and lower aquifers is no longer a problem, because engineering and institutional controls will be in place to render moot the questions about the direction and commingling of natural groundwater flows offsite.
3. With sufficient rigor in the design and operation of the in-situ stabilization process, coupled with a post-stabilization monitoring program, and with contingent plans in place for treatment of collected upwelling groundwater, a major source of justifiable anxiety about the safety of the city's drinking water can be alleviated.
4. Only soils in the outlying areas would have to be excavated and moved offsite. If no more material is added to what is already capped, and if what is there now is stabilized, we needn't worry much about additional compression of the contaminated soil and displacement of PCB-saturated pore water.
5. The threat of worker exposure and airborne dispersion is reduced to that of Alternative 4, maybe less.

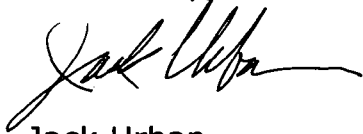
From a public acceptance standpoint, there are additional advantages to in-situ containment with treatment:

1. An alternative other than the ones developed by a firm under contract with the EPA is being considered.
2. It makes more credible the EPA's role as disinterested arbiter of competing conceptions and assessments of the likelihood that contaminated water could reach the city's wellfield.
3. It would show the public in a way that goes beyond verbal assurances that its concerns were heard and considered.

In passing, I would like to add that, in my opinion, Alternative 6 was not a very creative way to encapsulate the material on-site. For example, Arcadis could have suggested purchasing or acquiring access to the Panelyte property and using that area as part of a lined landfill, making two moves of contaminated soil unnecessary. Also, effective in-situ chemical stabilization as outlined above could accomplish essentially the same thing.

Please place this item of correspondence in the Administrative Record.

Yours truly,

A handwritten signature in black ink, appearing to read 'Jack Urban', with a stylized flourish at the end.

Jack Urban

jackurb@mac.com

**In-Place Closure of Industrial Waste Impoundments: A Case History*
by Burke, Browning, Dodt, Fleener and Miller; abstract at
www.umasssoils.com/abstracts2002/Tuesday/heavymetals.htm

**River Raisin Area of Concern* www.epa.gov/glnpo/aoc/rvraisin.html

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